Ballarat Amateur Radio Group Inc. (BARG)

HAMVENTION

Sunday February 4 2024

BARG Newsletter

Ballarat Amateur Radio Group Inc. #6953T

December 2023 Monthly Newsletter

Next Meeting General BARG inc

11:00am, Saturday 27th January 2024

At the Airport - All Welcome

Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au https://twitter.com/vk3_barg https://www.facebook.com/groups/VK3BML/

Contents

Contents 2
New Dates and Times of BARG General Meetings 3
January 2024 Working Bees 3
President's Report December 2023 4
From the Doc….John VK3CFH 6
Silly Statistics 7
BARG Hamvention 2024 8
Come Along to the BARG Coffee Mornings 9
Final month for 100 years of Amateur Radio Certificate 10
Aid From Interstate 10
Some Satellites to look for over the holidays. 14
Musings from a DX chaser 15
AMATEUR RADIO AUSTRALIA DAY CONTEST 2024 17
VHF – UHF Summer Field Days 2024 17
Ross Hull Memorial VHF/UHF 2024 Contest 18
What 3 Words 18
FOR Sale FT-101B + Spares & Accessories 20
WIA Convention 2024 – Bundaberg QLD 21
Magazine Reviews 22
Amateur Radio Vol 91 No 6 2023 Review 22
QST December 2023 Review 24
Silicon Chip December 2023 Review 29
DIYODE December 2023 Review 30
Back Copies of BARG inc. Newsletters 31
32 pages !! 31
VK3BML BARG HF ROSTER FOR CONTROL 32

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU

LINKED REPEATERS: *The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.*
Access details for this repeater have recently changed.
For full details of this linked network and access details see https://www.qrz.com/lookup/vk3rba
You can listen to the system live http://vk3rba.dyndns.org:441/
This linked system may be accessed via IRLP node 9503.

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Craig VK3KG
Secretary	Peter Westgarth VK3APW	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Lachlan Macdonald VK3ALM
Ordinary Member	Ian Fairweather VK3YFD		

New Dates and Times of BARG General Meetings

The next meeting is
General Meeting. Saturday 27th of January 2024 11:00am

January 2024 Working Bees

Keep an eye out on Facebook and BARG groups.

President's Report December 2023

To start thankyou to those who came out to the BBQ on the 9th of December. Although the weather was not so great, we did have a good time.

I don't have much to report for this month due to a lot of my reports are based on what is decided at committee meetings and there has been no committee meeting for December.

But with that I still have some things to say this month.

We are now in full swing for Hamvention in February. Bookings are coming in for tables and the small team are working hard already to prepare for it on the 4th of February. A club table will be available for those wanting to dispose of gear again the usual rules apply. We will shortly be asking for Volunteers for the day and setup on Saturday Afternoon. Keep an eye on your email for more info about the club table and volunteers.

During the first 2 weeks of January there will be a couple of working bees at the clubrooms these are intended to be small. What will be happening is still the grounds tidy and there will be a large sort going on in the Workshop out the back and one of the rooms inside needs to be cleaned out and some shelving setup.

The rotator for the VHF/UHF antennas may also be setup if we have the numbers to do it. I will put out an email around New Years Day with dates and times. Lunch should be provided.

In other news, throughout the first quarter of next year there will be a few surveys put out to members by myself on various topics to allow the committee in the end to work out which direction the club needs to take. The first of these may have already been released or will be released as the newsletter is released via the members email and is asking for comment opinions on Local Radio operation from the clubrooms and if we buy some new radios to support it. I understand that some members do not have access to email to fill the survey in so there will be printed versions available at meetings and coffee mornings.

Please fill them in when they come out.

With the change to class licencing on the 19th of February 2024, a new chapter in Amateur Radio is going to begin. We as Amateur Operators who enjoy the various aspects of this hobby can either embrace the changes, promote, and support Amateur Radio for what it is going to be under a class licencing model or like some seem to be doing publicly protesting, throwing a tantrum, and throwing abuse and dirt, which just results in bringing the hobby into disrepute.

Interestingly reading through the recent email and the legislative document titled Radiocommunications (Amateur Stations) Class Licence 2023, there is not much difference from the LCD as far as rules for use go. You still need a qualification now called an ACMA recognition certificate, I believe the syllabus is still the same, most of the operating rules are the same as they are now as far as I can see but these are still to be fully finalised.

The email that not all have gotten that came out on the 12th of December, gave some detail about the changes in February when the class licencing comes into effect. The ACMA will write to all existing non-assigned licence holders in January 2024 to outline key transition arrangements. The letter will confirm the qualification level and call signs you hold and are authorised to operate under the class licence if they comply with its conditions.

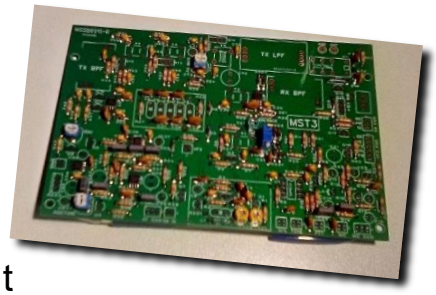
I would note here reading further into things there are still some grey areas, that will hopefully be explained in the January letter. One of these is contest callsigns but then the whole thing about contest callsigns has confused me from the introduction of them and I have not seen them used much, the number of contest callsigns listed in contest results is small.

We as a club now need to support the changes and create ways of promoting Amateur Radio to non-amateurs. This may seem like a hard task. We need to start to attract and accept new members to the club, teach and help them improve their knowledge of radio communications not hinder them or push them out, just because it would seem we are trying to fit a square peg in a round hole.

How can we go about promoting Amateur Radio as a hobby and better supporting those that are new to the hobby. First off by accepting that they will not know everything and will need to be gently taught how to do some things. Regular information sessions at meetings and regular publicly promoted club open days are a must. There will still be 3 levels of licence, Foundation, Standard, and Advanced. With Foundation being the easiest way into the hobby we should be promoting this to new commers to the hobby if they are sceptical about their abilities.

To use Kim VK3FMIK as an example, she came into the hobby due to a comment about she liked listening to a net I was taking part in I am not sure if this was the clubs 2m net or what is now the Round Table Net on the 70cm linked system. I just made the comment when she did that, she should think of doing her foundation licence and had about 4 weeks to study for it if she wanted to sit the exams at the same time as our daughter was to do her exams. Kim accepted this and I booked her in with Craig at the time for her foundation licence and we were both surprised when Kim passed first go. Kim has mentioned a few times that she would like to do her Standard licence and has started study for it but is still to get to a stage where she feels confident, she can pass the exam.

What are you doing radio wise over the summer period? I am going to this year try and do some portable operation, as just before COVID kicked in I had constructed a linked inverted V dipole for portable use 40m – 6m and I really want to finish off the hourglass antenna I started early this year for 2m portable SSB operation, I also have this darn MST3 HF QRP rig that I need to finish off that keeps looking at me from the corner of the bench where it was placed daring me to complete it. For those sceptical that I a linked inverted V dipole may not work, I may be with you on that but at the time I had only one squid pole available so an inverted V was the best way to go I could get all bands except 40m to tune in the backyard. 40m I tuned on a quick trip out to the Flagstaff Hill Lookout near Linton but due to some bad timing and I only had one battery with me that was not fully charged, once I had it all tuned up I had to head home, so there has still not been an operational test of the linked inverted V dipole.



Thanks to Lachie VK3ALM for a loan of a SARC 100 antenna analyser at the time so I could set the inverted V up a little better and find a nagging issue with my 40m dipole at home (one must keep the end a little further away from the metal fence).

Our next general meeting is due on January the 27th with the committee meeting being on Monday the 15th of January.

A merry Christmas and Happy New Year to all.

Until next year 73's

Ben VK3NRD

From the Doc….John VK3CFH

What's in a name?

FLEMING;

Sir Alexander: Bacteriologist discovered Penicillin.

Sir (John) Ambrose: Inventor of the two-electrode radio rectifier (Diode).

Sir Arthur Percy Morris: Engineer, helped to develop techniques for manufacturing radar components.

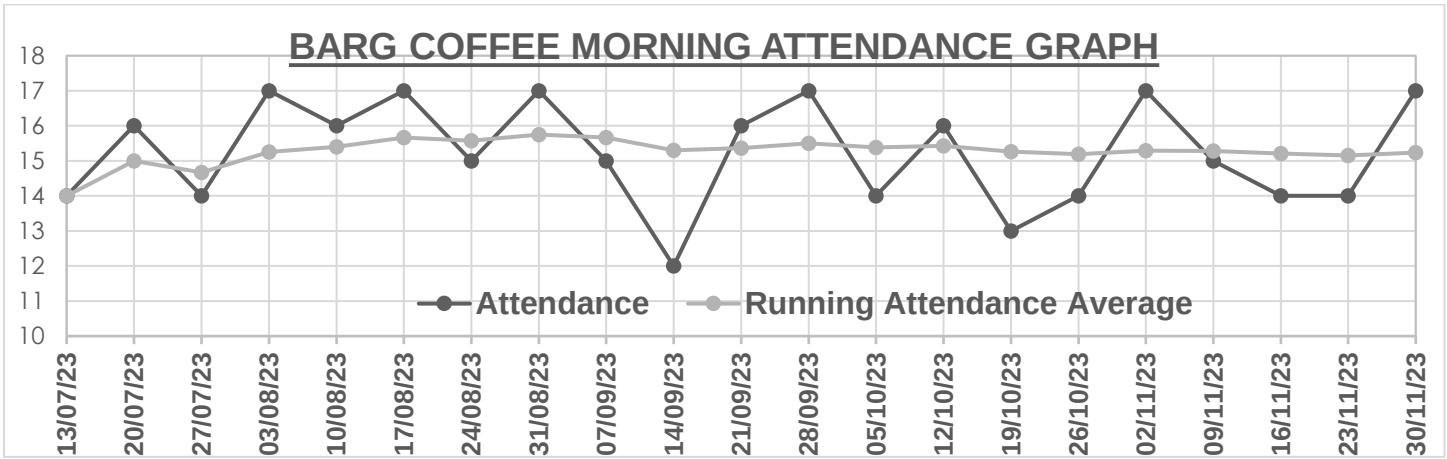
Ian (Lancaster): From his experiences, created the character James Bond, secret service agent, 007.

Richard H(owell): Oceanographer, chemical and biological military applications of oceanography.

Sir Sandford: Civil Engineer and Scientist; helped development of the Canadian Railway System.

But have you also noticed that some form or other very well known, successful, notorious persons have unusual names which give them their identity?
(Yes, Samuel Morse inventing Morse Code, how coincidental was that!!! VK3DMK Editor)

Silly Statistics



BARG Hamvention 2024

Ballarat Amateur Radio Group Inc. (BARG)

HAMVENTION

Sunday February 4 2024

At the Ballarat Polo-Crosse Club's Facility,
Ballarat Airport

Display and Sales (setup from 8am on the day)
Trade Table $20.00 includes one admission,
(Space for 70+ tables, this is the big one!)

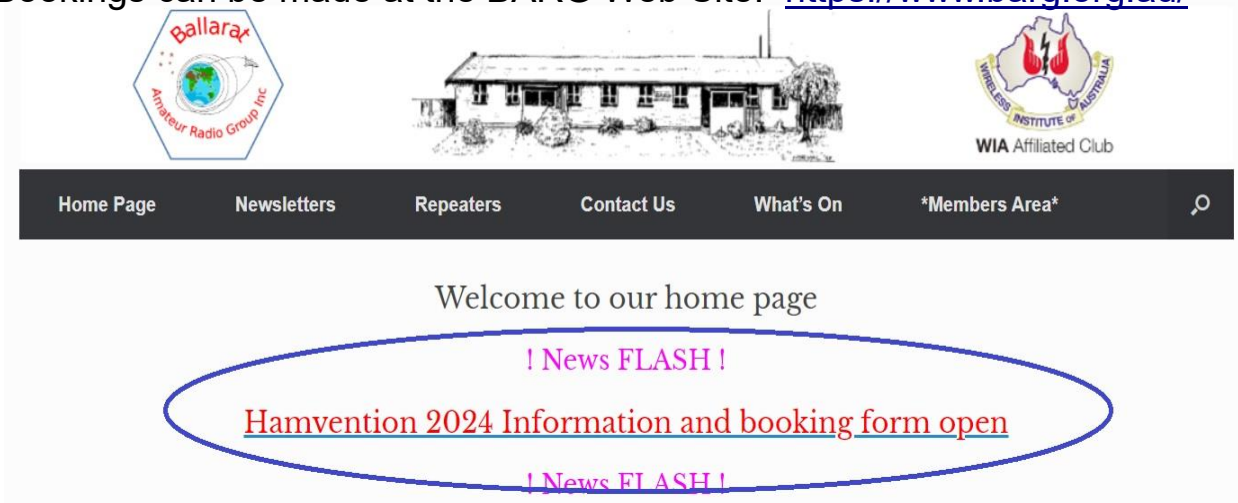
General Admission $ 7.00 (accompanied under 15 free)

STRICTLY 10:00 AM START

Food and drink will be available on the premises

Enquiries and up to date details: BARG on the web www.barg.org.au

Bookings can be made at the BARG Web Site. https://www.barg.org.au/



Come Along to the BARG Coffee Mornings

The Ballarat Amateur Radio Club would like to thank Tina and Micheal, at Food Seduction on Doveton, for their fantastic hospitality through 2023 and hope you have a fantastic 2024 season.

Every Thursday at 10 am
Food Seduction on Doveton
524 Doveton St Nth Soldiers Hill
(The old Gove Bike Shop)

WOULD YOU LIKE TO CONTRIBUTE TO OUR MONTHLY NEWSLETTER?

IF YOU THINK YOU CAN WRITE OR CONTRIBUTE SOME PICTURES OF CLUB OR YOUR AMATEUR RADIO ACTIVITIES FEEL FREE TO CONTACT ME.

73 TOM VK3DMK. tomvk3dmk@gmail.com

Final month for 100 years of Amateur Radio Certificate

It will not be long before the end of the awards period, 31st December 2023

So, if you are on air and a BARG inc. member, get out there and promote your club.

Do you have a regular net, any band, use your membership to send the net members a certificate recognizing 100 years of Amateur Radio in Ballarat.

Its Christmas time so GIVE….

Not sure how to organise an Award Certificate?
Check the BARG Web page at http://www.barg.org.au and click the link.

June 2023 was the anniversary of 100 Years of known Amateur Radio activity in Ballarat.

Click here to read how BARG is trying to commemorate this significant event.

Aid From Interstate

THE CITIZENS BAND CONNECTION

by Alan Young - Metropolitan Ambulance Service Melbourne

From "Ambulance World, Journal of the Ambulance Employees Association, December 1989.

Contributed by Terry, VK3UP (The smart looking guy in the picture three pages down.)

There are few occupations where employees have an affinity as close as those in the field of ambulance work and this is epitomized by the way individuals work as a team at incidents of both man-made and natural disasters.

The camaraderie, however, spreads beyond the boundaries of particular services and across state borders. Despite the cliches, ambulance is a unique occupation which brings out the best in its practitioners.

The co-operative spirit was never better illustrated than on Monday 14th August 1989 just after noon, when trainee communications officer Stephen Bird answered a call from the Citizens Band Radio Emergency Service Team (CREST) in Footscray, a western suburb of Melbourne.

The caller advised he had picked up a faint radio message from a female motorist who had been approached by two motorcyclists seeking assistance. The two were with a party of eight others, all from Tasmania, who were on a motorcycling safari around the outback and had left the main group to seek help after one of their number had fallen from his machine.

In fact, the call had come in 8 minutes earlier when monitor Terry Murphy was maintaining a listening watch on the 27.065 MHz upper sideband. This frequency usually picks up both AM and lower sideband and is extensively monitored by CREST.

At 1228 hours, a female voice came across, calling *"CO CO,* does anyone have a copy please, we have an emergency."

Terry immediately responded and switched on a tape recorder, which is normal practice in case of difficulties, loss of transmission or the need to try and interpret the message.

The caller came in again. "Thank you, we are on the Kennedy Devel (sic) Road and about 60 kms out of the Oasis Roadhouse and there's a bikie who has fallen off and is unconscious and has a broken leg and we need to know how we can get medical attention, over"

The transmission was understandably weak and fading in and out, necessitating Terry asking for repeats on almost every word. The caller was patient and responded to his request so that over a period of two or three minutes, he was able to obtain as much information as was possible considering the location was only approximate. Terry advised that he endeavor to obtain assistance, however there was no further response from the caller.

Terry Murphy had the unenviable task of deciding whether to action the call or of ignoring it. His decision had to be based on his extensive experience as a monitor and after weighing up all the details provided, the manner in which the caller conducted herself and answered his questions and the possible ramifications, he picked up the phone and dialed 11440, to reach the Metropolitan Ambulance Headquarters in Melbourne.

As most communications officers would be aware, since the advent of CB radio in Australia many years ago, emergency services have had their share of hoax calls radioed in by various sub-species of the human race who have no idea nor consideration for anyone else. In the very early days of CB, most calls were regarded as hoaxes until corroborative evidence by way of at least one other call was received, such was the prevalence of this stupid practice.

Stephen Bird, in true ambulance fashion, questioned the caller closely, more so because the site of the alleged accident was in Central Queensland. The CREST operator with 2 years of monitoring experience, had wrung as much information as possible out of the woman calling for help and was totally convinced of her bona fides.

Noting all the details on the communications case card, Steve rang the Q.A.T.B. Brisbane Centre and was given the phone number of Hughenden, the nearest town to the Oasis Roadhouse, at which an ambulance is located.

The incident occurred on "Clothespeg Station" a property of about 260 square kilometres, which straddles the Kennedy Development Road a formed earth highway from Hughenden in central Queensland to Cairns some 600 kms to the north-east.

Hughenden is in the middle of the beef cattle belt on the Flinders Highway approximately 400 kms from Townsville to the east and 500 kms from Mt Isa in the west. With a population of 1,500, Hughenden has three ambulance officers who cover an area of more than 42,000 square kilometres and they are equipped with two Toyota Landcruiser vehicles (a single stretcher and a double stretcher configuration) and a Holden one ton conversion fitted with two stretchers.

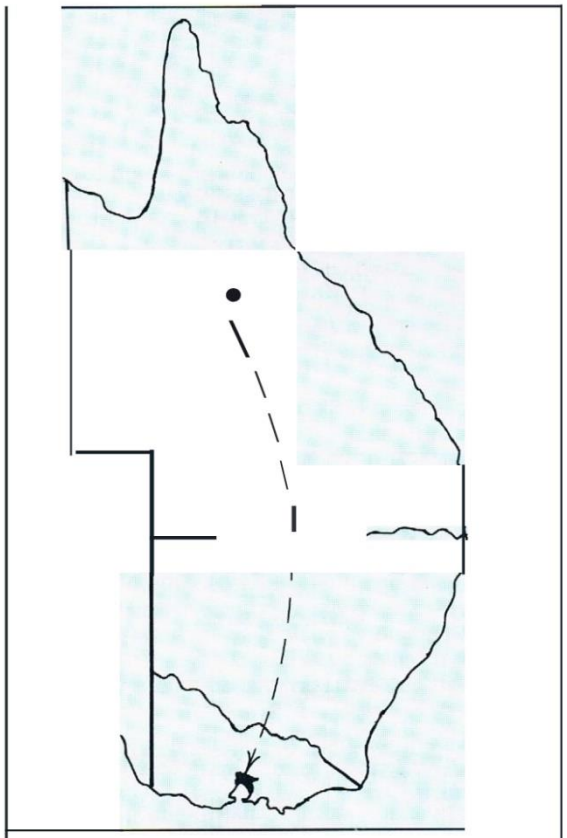
Another phone call put the Metropolitan Ambulance Communications centre in contact with Superintendent Graham Sealey of Hughenden Centre. Graham located the site on his wall chart, noting that it would be a good two hour run from the town, then dispatched a vehicle. At that point in time, he was not sure as to the genuiness of

the call but accepted it in good faith, determined to check it out for himself.

The crew who left town to attend the incident were Officer Brad O'Brien, a new member of the Hughenden team who at 19 had only just completed his probationary training and a nursing sister, Kathy Neath of the local hospital. Graham Sealy felt that with a patient as badly injured as reported, it would be a difficult, if not impossible task for one person to handle. The vehicle finally left at 1300 hours.

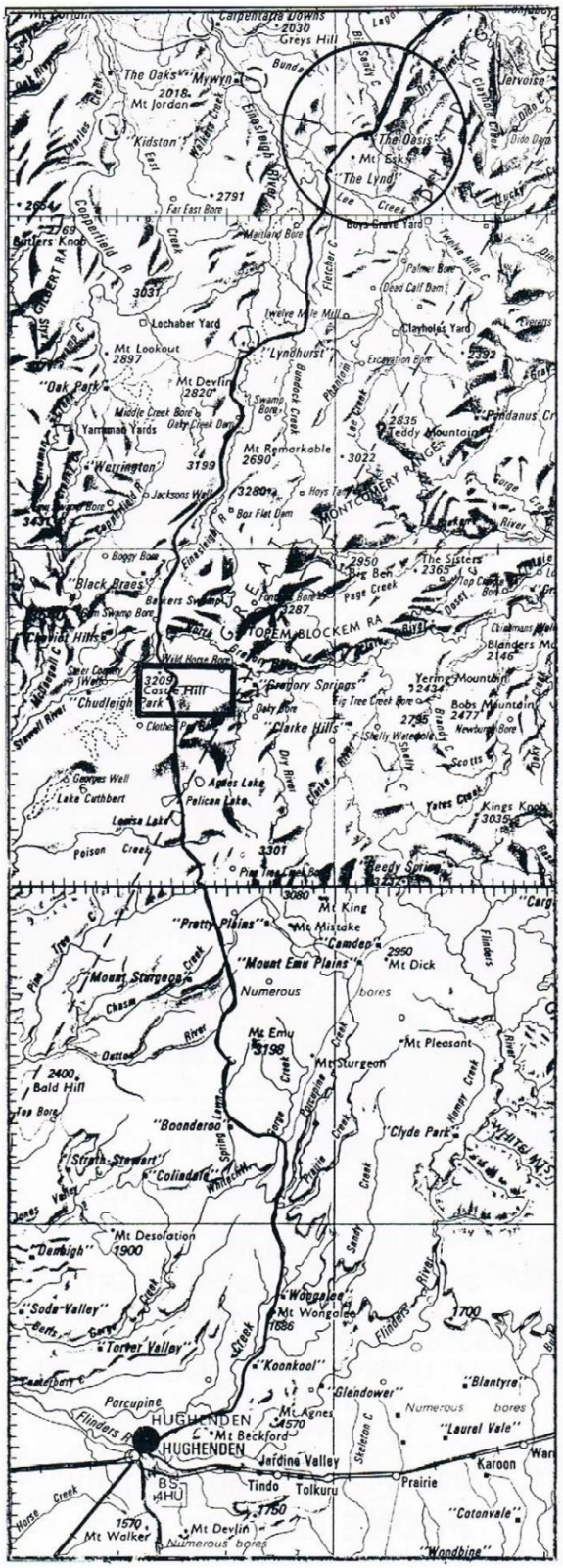
Shortly after, Graham made contact with CREST monitor Terry Murphy and listened to the tape recording of the initial call. He was then convinced he had made the correct decision in dispatching a vehicle, albeit nearly 200 kms out of town.

It was obvious the patient would need to be evacuated to a centre with better trauma facilities than those existing at Hughenden and so a call was put through to the Royal Flying Doctor Service at Townsville, however they were unable to assist as one of their aircraft was stripped down for maintenance and the other was already responding to another emergency up the coast.



(above) The distance the original signal "skipped".

(right) Chart showing the Oasis Roadhouse circled near the top and Hughenden at the lower edge. The accident occured in the are marked by the rectangle.



At about the same time as the news was passed across the phone to Graham Sealey, the owner of Clothespeg Station a Mr. Tony Murphy, discovered the injured motorcyclist being cared for by his fellow riders. Mr. Murphy immediately returned to his homestead and rang the R.F.D.S., unaware that a call had already been made about the same accident a short time before.

Soon after receiving the negative response from the R.F.D.S., Superintendent Sealey was called by the North Queensland Emergency Response Group notifying him that the flying doctor had requested their help in evacuating the patient. Graham advised the N.Q.E.R.G. of the location of the incident and that an appropriate airstrip was sighted on the adjacent "Gregory Springs Station". Twenty minutes later, an N.Q.E.R.G aircraft with a doctor and a paramedic on board took off from Townsville airport.

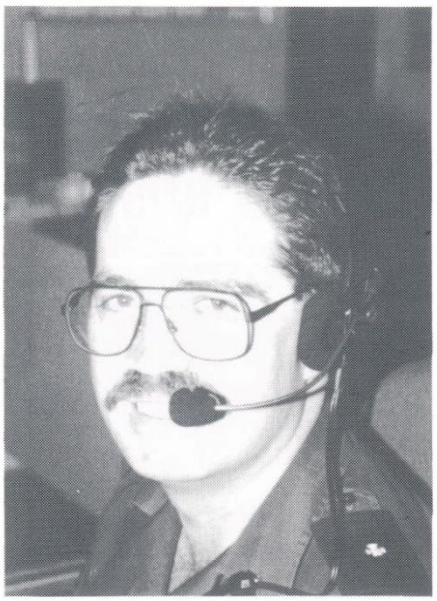
The ambulance arrived at the scene of the accident at 1453 hours after a trip of almost 120 minutes on the rough Kennedy Development Road. The vehicle, a Toyota Landcruiser gave less than an armchair ride on the formed earth road, but proves invaluable during wet weather, when anything but a 4 wheel drive might as well be left in the garage.

Their examination revealed a 57 year old male with a fractured tib and fib, possible fracture of the shoulder and head injuries. The patient had been unconscious but was semi-conscious and on completion of the examination, he was loaded aboard the ambulance for transport to the airstrip on Gregory Springs.

At 1653 hours, the ambulance crew called in clear as the aircraft carrying their patient, lifted off from the Gregory Springs airstrip, then commenced the long trip back to Hughenden. This proved to be almost as adventurous when a puncture delayed them even further. Officer O'Brien and the sister eventually arrived back at the town at 2000 hours, by which time the patient had arrived in Townsville,been assessed and treated and was lying in intensive care.

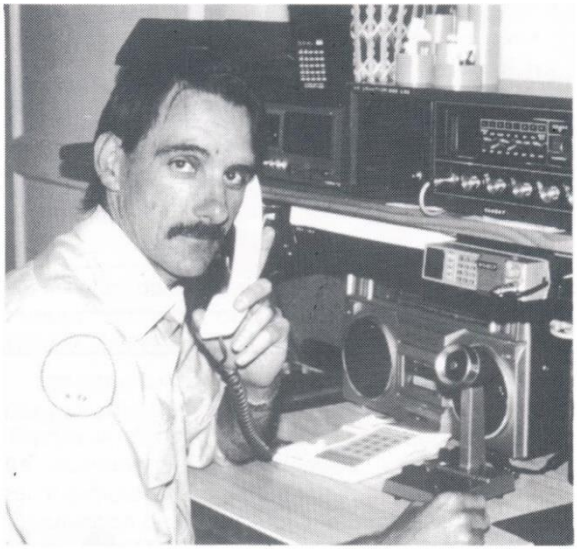
The entire round trip entailed 365 kms over a period of seven hours with perhaps 50 minutes actually spent treating the patient, but such times and distances aren't an exception to the officers of Hughenden and the other towns along the Flinders Highway. Rather they are the norm. With the next nearest ambulance 240 kms to the east, 120 kms to the west, 200 kms to the south and 300 kms to the north, calls such as those subjects of this report, must be evaluated carefully and a decision made as to whether resources should be committed. With an area one fifth the size of Victoria covered by just three officers, it is imperative that the decision made, is the correct one.

At 1735 hours, Stephen Bird, in the Melbourne communications centre of the Metropolitan Ambulance Service, received a telephone call from Graham Sealey in Hughenden to inform him of the outcome of the case and to thank him for his valuable assistance. Steve in turn, rang Terry Murphy who had set the whole chain of events in motion, to advise that his efforts and perseverance in taking down as much detail as possible, had been



Stephen Bird joined Metropolitan Ambulance Service in 1985 completing his associate Diploma Course three years later.

He has *spent a substantial part of his ambulance career at the Northcote Branch of the Service and recently undertook the Communications training course, during which time the Hughenden incident occurred.*



Terry Murphy was *born in Altona in 1954 and achieved his boyhood dream of becoming an engine driver with Vic Rail after leaving school at 15 and working on a number of dairy farms.*

In 1973 whilst based at Traralgon in the Latrobe Valley, he became involved with amateur radio and eventually offered his services to CREST. Terry now spends considerable time monitoring from CREST's Footscray base.

Instrumental in the successful evacuation of the patient from central Queensland.

While it is true that the patient would eventually have been transported, the chance pickup of a weak but audible radio signal ensued as rapid a conclusion as was achievable under the circumstances.

The entire exercise could have been a cruel hoax and doubts must have gone through the minds of the three men involved in coordinating this rescue. It wasn't and this fact was verified by the owner of Clothespeg Station when he became the fourth player in the resolution of this drama.

What is more amazing is that Terry Murphy, seated in front of a console nearly 2,100 kms from the scene of the event, was the only person in this entire country to have picked up the original call and acted upon it.

Many people took part in this incident to a greater or lesser degree, all contributing their time and effort in a common cause. It demonstrates the concern which is a hallmark of those who choose to live in the more isolated areas and who must, by necessity, rely on their neighbours for help when things go off the rails. It also illustrates how people can co-operate to achieve a satisfactory result regardless of who or where they are.

Ambulance World would like to thank the following people who assisted in the preparation of this article.

Superintendent Graham Sealey - Q.A.T.B. Hughenden.
Ambulance Officer Stephen Bird - M.A.S. Melbourne.
Mr. Terry Murphy — CREST Victoria Div. Footscray.
Mr. Mike Popowyzc - Manager N.Q.E.R.G. Townsville.
Mr. Tony Murphy - Clothespeg Station via Hughenden.
Mr. John & Mrs. Geraldine Murphy — Gregory Springs Station, via Hughenden.

Graham Sealey is a professional ambulance officer who commenced his career 20 years ago as a recruit with the Q.A.T.B. in Townsville.

He has served at a variety of locations in Queensland including Hervey Bay, Bundaberg, Carmello and Mt Larcom before being appointed Superintendent of the Hughenden Centre.

Some Satellites to look for over the holidays.

A couple of interesting satellites have been launched recently.

EIRSAT-1: Ireland's First Satellite Listen on 437.100MHz
https://www.eirsat1.ie/

'EIRSAT-1' stands for 'Educational Irish Research Satellite'. A team of students in University College Dublin, with support from academic and professional staff, has designed, built, tested, and is operating, Ireland's first satellite, a 2U CubeSat, that was launched on December 1st, 2023.

SpIRIT (Space Industry – Responsive – Intelligent – Thermal Nanosatellite)
Listen on 401.875MHz
https://spirit.research.unimelb.edu.au/
This nanosatellite is an Australia-Italy mission supported in Australia by the Australian Space Agency's International Space Investment – Expand Capability scheme.

Musings from a DX chaser

As they say, 'history is written by victors'. And when it comes to accurate historical records, the ancient Egyptians were probably the worst. They almost never chronicled their defeats, only victories.

DX chasers are as bad, if not worse. Always happy to brag about the last 'new one' worked, while tight-lipped about many more who they missed. And who can blame them? Hours wasted, electricity wasted, suppressed emotions leading to one: determined reticence.

In recent months I've missed too many. Ducie Island, Pitcairn, Trindade and Martim Vaz Island, Ghana. The list of excuses is long: an overseas trip, a storm taking the antenna down, a complete lack of propagation - or just being on the wrong band at the wrong time. Happens to all. But there is a DX station that alludes me for four weeks: EM1U from the Ukrainian Antarctic Station ‘Academic Vernadsky'. Named after the Ukrainian / Russian scientist Vernadsky, who was one of the first to recognize the tremendous potential of radioactivity as a source of thermal energy.

There are two reasons for being unable to make a contact with EM1U who does appear on air almost daily: direct over the South Pole path (as bad as the North Pole!) and shift work! Sergiy, the current radio officer is not there on a holiday or amateur radio expedition; he is there to work. And one can only imagine what the daily routine possibly looks like on an Antarctic base. The good news is that Sergiy is staying there until April 2024. Eventually, the stars will align, the signal will peak mightily, perhaps on a frequency least expected - and he will be in my log.

As you already know, there are dozens of research and military bases on Antarctica, some manned permanently, others only during our summer. Nowadays, a need for a Morse operator at the station is diminishing fast, so finding Antarctica on air is quite a challenge. But some stations are still active: Japanese, Argentinian, American dead centre on the South Pole - as well as our flag bearer, Alan VK0AW at Mawson.

Ham radio - what a hobby!

Nick VK2DX www.DXing.com.au

CONTACT US

By Email:
enquiry@elitecommunications.com.au

By phone:
07 5605 2000

Opening hours:
Mon-Fri: 9am – 4pm
Sat: 10am – 2pm
Sun & Public Holidays: CLOSED

Shop Address:
The Shed
252 – 260 Marks Road
Jimboomba
Queensland 4280

www.elitecommunications.com.au

Elite
Communications & Electronics

Making communication possible

ABOUT US

Elite Communications & Electronics was born from years of being passionate and active with the ham radio and cb hobby. Many years of hands-on experience, allows us to bring valuable knowledge and expertise to our customers.

Our customer-friendly online & physical store offers communication equipment, mobile entertainment , road safety and Marine equipment.

Elite Communications & Electronics is quickly becoming one of Australia's leading online and in-store retailers for car, 4×4, truck, machine, bus, marine, communication, electronics, navigation, accessories and much more. We have access to well over 25,000 product lines developed by the most trusted brands in the industry.

OUR PRODUCTS & SERVICES

- Communication Equipment
- GPS Tracking & Locating
- Mobile Entertainment
- On & Off Road Safety Equipment
- Marine Equipment
- Satellite Equipment
- Minespec Equipment
- Emergency & Survival Equipment
- Military Equipment
- Boating Equipment
- Fleet Fit-outs
- Security Equipment
- Two way radio Preventative maintenance (periodic or one-off)
- Australia-wide Consultation
- Australia-wide Installation
- Australia-wide Delivery

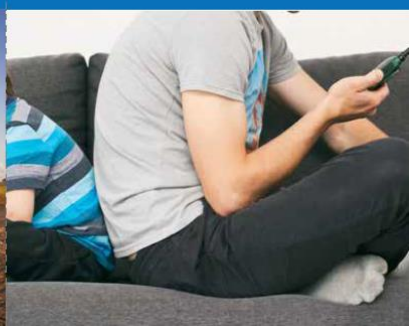
Visit our website to browse our latest products.
Can't find what you are looking for?
Why not give us a call for a one-on-one chat or pop in store and let us help with your needs.

WHO DO WE SERVE?

- Mining Industry
- LNG
- Construction Industry
- Government Departments
- Transport Industry
- Retail Industry
- Manufacturing Industry
- Overseas Distribution
- E-commerce
- Product Design

At Elite Communications & Electronics, we pride ourselves on providing our clients with accurate advice and exceptional service in sales, products and installation.

Contact us for further information on how Elite Communications & Electronics can benefit the efficiency, productivity and safety of your company, business or organisation.



AMATEUR RADIO AUSTRALIA DAY CONTEST 2024

Got plans for Australia Day? You may want to change them and test your shortwave operating skills!

Contest Introduction:

New distance-based rules and FT8/4 for 2023+

This contest is to encourage Amateur Radio promotional Activity around the world and is designed to encourage friendly participation and help improve the operating skills of participants. It is held on the Australia Day Public Holiday that being the 26th of January.

Aim Of The Contest:

Amateurs in VK will endeavour to contact other amateurs around the world.

Some VK operators will be using the AX prefix to celebrate Australia day, as it's wanted by many amateurs around the world.

Scoring is distance based and calculated using 4-character grid squares.

For all the needed information and rules;
https://www.wia.org.au/members/contests/australiaday/

VHF – UHF Summer Field Days 2024

Summer 2024 - 0100 UTC Saturday 13 January through 0059 UTC Sunday 14 January (0400 / 0359 in VK6)

Contest Rules and logging information.

Aim Of The Contest:

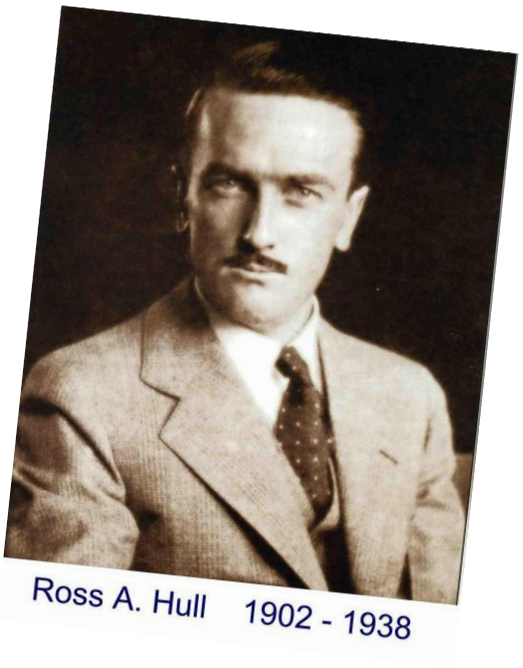
The overriding aim is to get away for the weekend and have fun! But next after that, the aims are:

- to encourage more activity on VHF and microwave bands;
- to encourage people to work greater distances than usual by operating portable:
- to provide opportunities for people to activate or work into new grid squares.

https://www.wia.org.au/members/contests/vhfuhf/

Ross Hull Memorial VHF/UHF 2024 Contest

Contest Introduction:

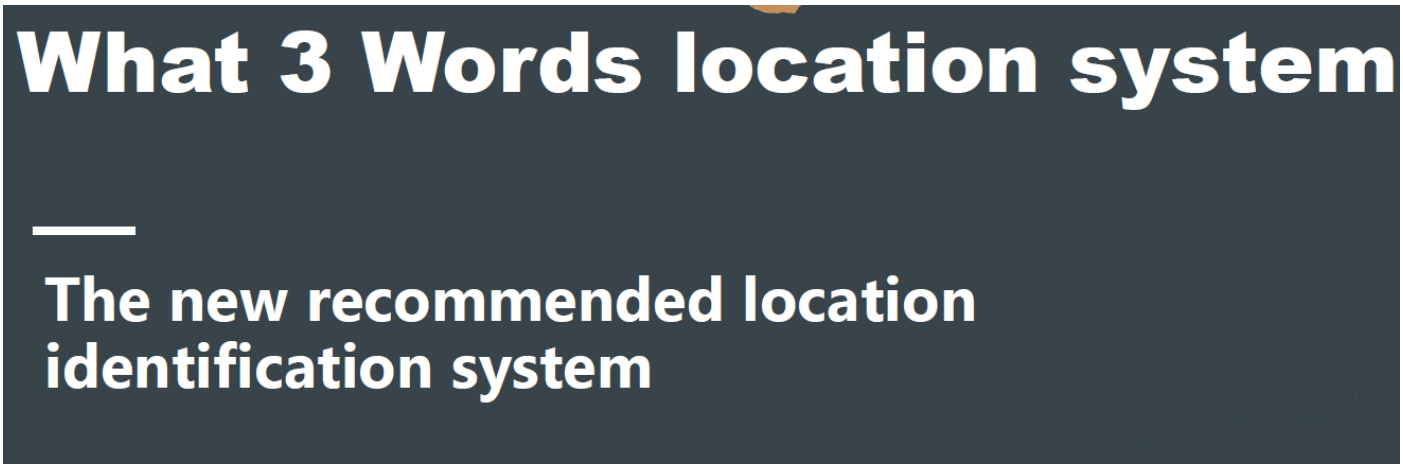


The Ross Hull Contest is a VHF/UHF++ DX contest, with points awarded for distances worked. There are also band multipliers to encourage activity on the higher bands.

Aim Of The Contest:

The aim of the contest is to encourage and to reward achievement in working the greatest possible distances on the VHF, UHF, and microwave bands.

For rules and logging information:
https://www.wia.org.au/members/contests/rosshull/



Contribution Robert, VK3ARM

Inkwell. Breezy. Swats.

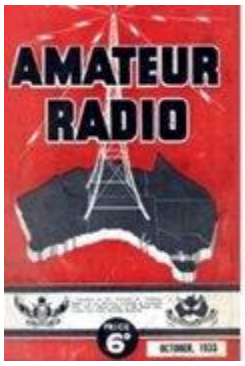
They're three random words, but for one NSW resident trapped 20 metres down a vertical cave entrance, these words saved their life.

The experienced caver was exploring in a remote part of the Yass Valley, but with the help of an app and those three keywords, his exact location was made known to emergency responders.

The technology is called what3words, and while it's used by millions worldwide, many Australians are still unaware of its existence.

Australia's emergency services have developed a free life-saving app, Emergency+, which helps people call the right emergency number and confirm their location. what3words is now available in this app, and emergency services in Australia accept and use what3words addresses to find Triple Zero (000) callers faster.

The app is available for free in the regular app download sites at Google or Apple



maker ▲ electronics ▲ wireless ▲ projects ▲ on-air ▲ news
AMATEUR Radio
Serving Australian radio amateurs since 1933
The Journal of the Wireless Institute of Australia

Celebrate 90 years of AR magazine with VK90AR 19 August 2023

Tom George VK3DMK and Bruce Kendall VK3WL/9V1WL

In October 2023, Amateur Radiomagazine (AR), the official journal of the WIA, reaches 90 years of continuous publication.

To mark this milestone, the WIA has obtained the special event call sign VK90AR for use by any member of the WIA as well as any affiliated club. Want to know more ? www.wia.org.au/newsevents/news/2023/20230413-1/index.php

Use of VK90AR expires on 31 December 2023.

Apply on the WIA website Online Event Calendar, at: www.wia.org.au/newsevents/events/index.php

· choose Submit A Calendar Event.
· this opens the Event Registration Form.

To completing the form, enter your details like this:

· Your Name: Kim Smith or Rosemary Kopp, etc
· Your Callsign: VK1ZYX
· Your Email Address: vk1zyx@wia.org.au, or vk1zyx@coldmail.dum
· Club Or Group Running The Event: if just you – enter your call sign (e.g. VK1ZYX); for a club, enter the club's name (e.g. Capital Amateur Radio Club). The calendar event will be registered to you or your group.
· Event Name or Title: VK90AR-VK1ZYX (your callsign)
· Category: select VK90AR from the menu
· State: e.g. VK1 or QLD, or VK9 for example
· Event Date: e.g. 25/12/2023
· Event Duration (in days): e.g.2 (or 1, or scroll to 5, etc); you chose how long you/the club want to use it.
· Event Start Time: your local time (e.g. for VK1)
· Event End Time: your local time (e.g. for VK1)
· Event Brief Description: Activation of VK90AR by (e.g.) VK1ZYX
· Event Detailed Description: give a detailed description of frequencies/modes/operators, etc.
· An email approving the registration, or otherwise, will be sent to you by the event managers.

LOGGING

All VK90AR activations must be logged electronically (hardcopy cannot be accepted) using one of the many amateur radio logging applications that are ADIF compatible (Amateur Data Interchange Format). For example – VKCL, N1MM, Log4OM, DXKeeper, HRD, et al.

Logs are to be emailed to the event managers, at: vk90ar@wia.org.au

QSLs

Logs will be consolidated and uploaded to Logbook of The World (LoTW) for generation and distribution of QSL cards from M0OXO QSL Manager Services.

An example of the QSL card front page design can be seen at p.14 AR Vol 91, No 4, 2023, or under Files for Download at: www.wia.org.au/members/armag/2023/july/

MORE Further information about Amateur Radio magazine, plus back issues (for member download), are at: www.wia.org.au/members/armag/about/

FOR Sale FT-101B + Spares & Accessories

Bruce VK3WL.

On behalf of Adrain Heinrich, briefly a former VK5, of Gladstone Park, Victoria, 3043, I am providing you with advice about the sale of this equipment prior to listing it more widely in the ARS community.

I have seen the equipment and can vouch for the appearances as depicted in the attached. These items belonged to his late uncle, a VK5 (SK), who was demonstrably very fussy about the appearance and care of his radio gear. For sale is:

- 1 x Yaesu FT-101B S/N: 4H310916 purchased new from Bail Electronic Services, formerly of Box Hill, Victoria. Aside from Adrian, who has never used this transceiver, it has had only one owner. Adrian has never powered-up this radio, however I am advised it was in 100% working order at the time it was gifted to Adrain. The external and internal appearance of this radio is immaculate and comes with all original packaging, owner's manual, and accessories. $650.00
- 2 x Toshiba 'Green Band' 6JS6C PA tubes in sealed wrapping. NOS. $125.00 ea
- 2 x Toshiba 'Green Band' 6JS6C PA tubes, unwrapped. NOS. $100.00 ea
- 3 x 12BY7A Driver tubes, boxed. NOS. $$75.00 ea
- 1 x 12BY7A Driver tubes, boxed. Used, tests 80% good. $50.00
- Midland SWR meter. $10.00

A 10% is offered for purchase of the above package as a 'job lot'.

Adrian can be contacted on 0416 200 920 or via the email address ach01@optusnet.com.au . I will not be involved in negotiations; however, I am happy to answer any questions interested parties may have based on my observations of this equipment when I purchased some 6JS6C tubes from Adrian recently.

WIA Convention 2024 – Bundaberg QLD

An Invitation from the Bundaberg Amateur Radio Club and David, VK4DN

Gidday!

I'm David VK4DN from the Bundaberg Amateur Radio Club – We are hosting the WIA Convention and Expo/Hamfest here in Bundaberg on May 4th / 5th in 2024.

It is the biggest event in the calendar year for Amateur Radio in Australia! Our members are thrilled to be hosting the event and we would like to extend a warm welcome to your club and members to attend the event.

The weekend includes the WIA AGM, several keynote presentations by guest speakers / a Commercial Expo and Hamfest / Field Day. A gala dinner and lots of other activities! We have even managed to secure a contact with the ISS on Saturday evening with a local high school – (The kids will be able to talk with an astronaut on the space station!)

We are also seeking guest speakers for the event with several slots available – If any member of your club would be interested in doing a talk about something they are passionate about (preferably related to Amateur Radio!)

It should be a very interesting weekend and an opportunity for amateurs from all over Australia to gather and network with other people interested in the hobby.

If you could please forward this email to your members, and discuss at the next meeting, it would be much appreciated! secretary@barc.asn.au

If you guys have any questions or comments, please don't hesitate to make contact with me!

Should any of your members like to book a table for the Hamfest or give a talk, please ask them to make contact as well.

If you're planning to attend, make sure you book your accommodation soon.

Bundaberg is an RV-Friendly Town and there are plenty of camping areas available if you are coming with your motorhome or caravan.

If you are flying into Bundaberg, mini bus shuttles will meet you at the airport and take you to your accommodation and to and from the venue over the weekend.

Mark the date in your calendar! May 4th and 5th 2024

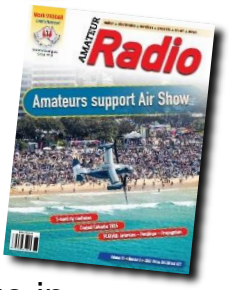
Kind regards,
David VK4DN
Secretary – Bundaberg ARC.
secretary@barc.asn.au
Ph: 0410 121 345

Are you interested in becoming an amateur radio operator?
If you are interested in WIA membership, the Amateur Radio Magazine and what is going on in the amateur radio world, then check out the site at;
https://www.wia.org.au/

Magazine Reviews

Amateur Radio Vol 91 No 6 2023 Review

P3 Contents.
P4 Editorial. Song derived from Canned Heat, "Let's Work Together."
P5 Board Comment. Introduction by new board member Giles Kirby, VK5GK. His view of the WIA and the board and its member's function.



P6 WIA News. Bundaberg WIA AGM is a go, 4 – 5 May 2024. Collecting valves is now a recognised "thing" with collectors becoming more and more numerous. Amateur radio to the rescue in VK4 when a bushwalker takes a fall, always carry your Icom, Baofeng, Quansheng, and/or Yaesu handheld with you. US amateurs will soon be able to use digital modes in the HF band at any baud rate if its transmission band width will fit in 2.8kHz. Emergency telecommunications regulations in Africa have the amateur radio bands extended during an emergency operation.

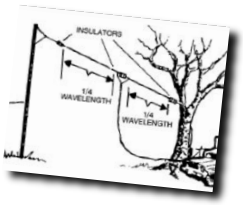
P8 Listening In. Monitoring the Airwaves, basic equipment needed including a DIY kit from Banggood.

P10 Amateur Radio and the communications system built for the Pacific Airshow last August 2023. The details of early planning and organizing local amateur operators and the selection of bands and repeaters in the Gold Coast, Surfer's Paradise region. A

very well run event highlighting amateur radio communication and co-ordination with Police and Emergency Services for the three days coverage was needed.

P18 A short vertical antenna for the 160m band. Justin Giles-Clark, VK7TW presents a project based on Drew Diamond, VK3XU, design. Includes a list of all Bunnings parts used and how an umbrella antenna is configured. Excellent construction details and images and performance data from a Nano-VNA, along with some on-air performance data.

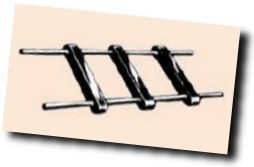
P24 A quick and dirty dipole for summer shenanigans. Some instructions on tips when building the standard ½ wave dipole for outdoor portable operation.



P25 SK, Vale Barry Wilton VK3XV. Barry performed great service to the WIA and all amateur radio operators as president and holder of other offices.

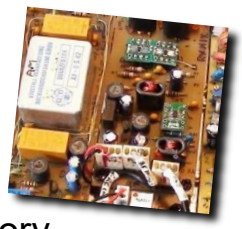
P26 The challenge and the thrill of Meteor Scatter propagation. Kevin VK4UH shares his knowledge and experience of this unique mode of amateur radio operation. Using the phenomenon of using the ionized trails of meteors entering the earth's atmosphere at over 100km altitude, radio waves can be reflected/refracted off these trails and provide very long range contacts on VHF and UHF. The article is a very comprehensive description of the physics of scatter, the equipment that is needed and the modes used to contact other meteor enthusiasts.

P31 Economical, rugged ladder line can be made from low cost agricultural parts. Donald, VK6JDM shows how to construct homebrew ladder line and the various materials and low cost methods of assembly.



P34 The 2024 Contest Calendar, assembled by Alan, VK4SN and provided in AR as a centerfold lift out for those that want place it on the shack wall for 2024.

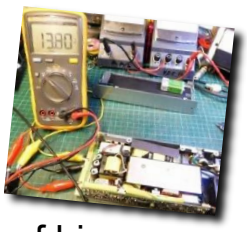
P37 Homebrew three-band100W HF transceiver. Lou VK3AQZ's fine third article, Part 2, in a series on design and construction of a well set out and documented HF rig. This part covers the audio amplifier, transmitter balanced modulator, microphone amplifier/compressor, band mixer, and power amplifier.



P48 Newcomer's Notebook. Jules, VK3JFP goes throught the theory and practice of SWR measurement and what it means to your transmitter.

P51 Survivor's Guide for Solar Cycle 25. A nice chart to use when you check the solar flux and indices

P52 A 13.8 Vdc, 50Amp power supply for less than $40. Rob, VK3BRS presents an article on how to repurpose a server power supply. A general look at such devices and the basics of converting to 13.8Vdc output.



P55 Spectrum Horizons. Keith, VK3OQ describes his adventure into microwave communications and a 20km DX on 122GHz, images of his 122GHz equipment which he aims to increase the limited range.

P58 WestNews. A history of the WIA VK6 broadcast and some 6m TEP workings.
P61 2024 Ross Hull Memorial VHF-UHF Marathon Rules.
P62 ALARA. Updates on meets and results of the 2023 ALARA contest.
P64 DX Awards. The latest VK listings of the DX Awards

QST December 2023 Review

Well, the year is nearly over, and we start again.

FIRSTLY, note a wiring change has corrected the BALUN for the LPi HF vertical described in the November issue. I have amended the hard copy with a “cut and paste” while the digital was amended by ARRL. Some may try and wind this Balun and use it for other applications so best we note correct winding now. The turns are OK, but the phasing of the connections is incorrect in the original article. Craig.

P9 Second Century. The CEO of the ARRL revises the changing patterns in amateur radio and the use of digital designs and information assistants like Siri, Alexa or Google, Apple, Amazon etc. Virtual reality has crept into our lives and you [or more correctly I can say] your station set up can work the world while you are at work or asleep. It will fill in the log for you and send a QSL to another station on your behalf. Is this reality or make believe.? Have you made contact and had a QSO as we know it.? FT8, Whisper and various digital modes are used for connecting stations and even use of meetings via Zoom and others has made a big change to way the hobby has progressed. You Tube is a very popular and well used platform that has allowed much hidden talent and knowledge to be brought to the front. Of course, it hasn’t been without an ongoing concern about hackers and those who wish to plant dissent and misinformation into the marketplace. Are we concerned, and how do we respond? The ARRL is listening, {as is the WIA, the NZARL, RSGB and other bodies} so get behind your organized club or body and suggest ideas or offer yourself for our hobby.

P13 Member. Joe Walsh WB6ACU born in 1950 Joe discovered amateur radio when family moved Queens in New York in 1961. He saw an antenna of Jim W2IEY rotate one Sat morning and made himself known. He was hooked as he listened to stations across the country. Starting as a Novice WV2KAC he later moved and with High school study including music taking over until college brought him back and an upgrade to General licence, following with an Extra he loved CW and SSTV.

Following on his love of music he was in a band called The James’s Gang they needed a larger sound presence, and he met Bob Heil K9EID, and a close relationship started and the James band also arrived with national recognition

followed by Joe joining a band called the EAGLES. They are the classic band of the 1975 time. He and the group were inducted to the Rock and Roll Hall of Fame in 1998 and they are still touring today. In 2012 he released his solo album Analog Man which he says represents his radio interests also as using a dedicated control knob instead of the mouse to adjust a function is his way in life. A collector of boat anchors, Collins, National, Hallicrafts and Millen wants to restore them sometime when the band isn't still travelling.
An amateur operator and well known musician, he still operates CW and AM on40 and 80M.

P24 Correspondence. Demise of CW requirements, Low power QSP award, Helpful spirit of Ham Radio, Unique intro to amateur radio.

P30 Best material for an Antenna. Making a wire antenna is Copper wire better than Aluminum or maybe steel wire.? There is a bit of math, but looking at the factors of weight, conductivity, and sag of materials. This short paper was prompted by Correspondence in QST Sept 2022 and article in QST April 2022 about "The Better antenna: Copper versus Aluminium." There is plenty to be considered if you wish to erect a wire antenna, especially if interested in the lower frequency bands but I guess to many amateurs today the choice is based upon the available wire they have on hand or the rule of thumb that says near enough is good enough especially if it seems to work on receive.
In finality is it correct ohmic resistance [impedance] matching, power handling, physical weight or strength of the wire, that matters or is efficiency more desirable in a wire antenna.?

P32 The OH3JF 5/8 Wavelength Vertical Dipole on 10MHz. Using no ground radials on this centre fed dipole it can also be used as a two band device. See the Sirio antenna at www.gain-master.it. The uniqueness of this antenna is because it's made from heliax coaxial cable [personally don't like idea of cutting up good heliax cable for use on HF antennas] but some may go for this concept. The basic dipole is made from two lengths of 14' 8" [4470.4mm] heliax coax was VF=0.85 so recalculate if diff coax used. The matching stub at the dipole centre is 1447.2mm and the capacitive hat piece is 330.2mm [13"]. The top wire above the coax capacitor is 34ft or 10.3632 M making the whole antenna 66ft or 20.12M long so a suitable skyhook is advised to hang it up. The top wire can be diverted or bent over to save height. This antenna was tested on 10.11Mhz with 500W and didn't show signs of duress. A choke was used on the lower coax feedline in. In summary the top piece of coax [called a capacitor] is wired in series with the long wire and the top of the coaxial dipole end. For the quoted piece of coax RFA-78 a length of 13" or 330.2mm long has a capacitance of 23.9pf at the design frequency of 10.11 MHz. Other frequencies can be calculated separately. See. www.arrl.org/qst-in-depth also look at the ARRL in-depth site for more frequency coverage. NOTE: The other 4 foot 9 inch [1.4478Metre.] matching stub is inductive as it's a short circuit at the bottom end. The choke at the bottom is

wound on a length of PVC garden pipe of 110mm diameter. The article calls upon using grey pipe, but it would pay to "zap" material chosen in a microwave first and see that it doesn't have any carbon content within. The choke requires winding the coax 27 times around the form and the ends of coax can be fixed to the former using sturdy cable ties.

Further detail about this antenna at the author's site. www.qrz.com/db/oh3jf

P35 Build a simple code oscillator for practicing the CODE. Simple design uses a 555 running from a 9V battery.

P38 Product Review. The WA3RNC TR-45 QRP CW transceiver, is a 80-75-40-30-20M and 17M low powered CW transceiver, running between 0-5Watts.The receiver is capable of SSB reception with Power needs are between 9.5 and 14Volts. The audio out is 1W into an 8 ohm speaker load. Mounted in a case measuring 6.25 x 6.25 x 5.15 inches and weighing in at 3pounds 2 ounces it looks more like a bench piece of test equipment than a portable transceiver. Cost at US $600 assembled and for extra US$70 it comes with an "optional" internally mounted Z-match on the rear or back panel. Also optional at US$70 is the 5.2Ah battery and charger. The supplier has two case options depending on needs with a heavier duty case or the "skinny" TR45-L version. See www.wa3rnc.com with more detail including a copy of the internal circuitry.

P42 Review. Oscilloscopes. Compares and reviews an OWON SDS1102, Hantek DOS1102 and the Hantek DSO5102P. These are new light weight portables unlike the heavy bench CRO's of old. A TABLE SHOWS SIMILAR RESPONSES OF ALL. They offer 100MHz BW, are all digital and range between US$200-300. Difficulty in getting out of the valley? The Cubical Quad versus the Hex beam.

P50 Ask Dave Home brewing on 10 and 6Metres. https://youtu.be/21QOHFqWtpQ Trouble getting out of the valley. Read on here.

P52 Intro to Parks on the Air.

P54. Voice processing and Ham Radio. Compression, Gating with expanders. Microphones, bandwidth, and audio speech response of the human voice. [Perhaps we need to be a Dalek to talk correctly?] The third of series covering this topic. https://w2ihy.com and https://ur6wq.jimdofree.com who each manufacture devices that support this article.

P58. Digital Microscopes solve Visual Challenges. For less than US$200 you can set up a great microscope with video screen to assist the blind handicap or low vision viewers in dealing with “micro-small” stuff. This article gives some background with the development history of a few brands available. Prices can be down from US $50 upwards to more than $1400. While early editions may have just been a camera and USB lead to feed a computer there are some that includes a dedicated camera and tablet like screen. One of the authors is now SK but the other is still contactable. max@funwithtubes.net

P62 Public Service. Discusses the importance of following up and event or exercise activity to make corrections and adjustments to found problems in your organisation activities and procedures.

P65 Listing for known CONTEST CORRAL activities over December. No activity shown for the 25th so the airways may be clear of QRM to allow the Santa express to deliver those wanted goods to all the girls and boys!!

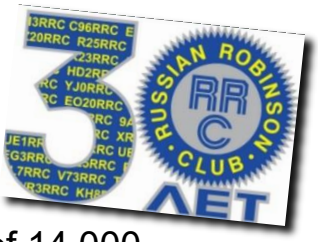
P82. Now some roundups of competitions in Jan 2024.

Jan 20-22nd VHF Contest Jan 1st Straight Key Night.
Jan 6th Kids Day Jan6/7th ARRL RTTY Roundup.
Feb 17-18 International DX Contest
Mar 2&3rd Int DX contest.

P86. Club Station. Attract & Engage Volunteers with Community Events. Some ideas.

P88 Media playlist K6ARK Portable radio--- Living your best life Outdoors.
www.youtube.com/c/k6arkportableradio also summits https://learn.arrl.org
See the ultra-portable setup video with a FT817 at https://tinyurl.com/k6ark-portable
There are some further videos mentioned here but this one may also interest the “homebrewer” in more ways than the quoted italics represent. https://tinyurl.com/k6ark-cantenna .This will offer some light refreshment to some home constructors looking for a project. Easy to collect.!!
https://tinyurl.com/k6ark-sota

P90. How’s DX. The RUSSIAN Robinson club is 30 years old. Starting in 1993 as a group of travelling amateurs they now boast more than 1100 members from around world from 58 countries. They are a virtual club and come together when activating different countries and **islands**. Having activated over 1,000 islands since they started Their last was to activate Cuba with 8 day operation totaling a score of 14,000 contacts.



P92 World above 50MHz. A new UHF record has been set. In America on 31Aug and 5Sept worked on Tropo 2313km using the 222MHz band. [Not std band in many places.] Stations were KF0M [EM17] and K1WHS [FN43] There were also several other stations finding open bands on 2M and 70cm. Another pass

on 70cm was 1,994 km and 1,628km by another station. These being voice to voice contacts, there have been claims made using the Beacons and FT8. {A case of AI already active against a person to person conversation.}

P94. Special event stations are active over December.
Notable that there will be two event stations Remembering Pearl Harbour on the 7December and also on the 9 December two stations commemorating both Pearl Harbour attack by the Japanese and "Ike's Atoms for Peace speech from the nuclear ship[Savannah] Some frequencies to look around are 3850, 7,040, 7270,7,275, 14,040, 14,250, 14,265, 14,275.

P98. QST looks back at the Jan 1974 edition. [50years ago]
Hints and Kinks pages with ideas to help everyone. Locking up a Collins KWM 2 mobile. Override mod for CW in a HW-100. Removing solder from terminal strips. Improved regulator circuit and how to key a transmitter from the tape recorder using a SN7400N.
P101 Celebrating our Legacy. Those that are hoarders and collectors are helping keep our history alive and are resources for others in coming decades to have a window to look into.

P102 Classic Radio. From the 1950's to 1970's with Crystal calibrators. What the hell is a crystal calibrator I can hear most amateurs saying now. I don't have a crystal to get my radio onto a channel the radio just knows where it is! Well, well, that's not how it happened back then, nor does it have to be that way nowadays. The well-known commercial brands sold then used LC combinations to set frequency in both transmitters and receivers. Because of thermal conditions, drift, and mechanical vibration these circuits wouldn't stay on exact frequency and the gear had to be checked from time to time. Collins Radio had THE FIRST INBUILT CALIBRATOR in the post war 75A-4**,** Hallicrafters in 1984 had a built in crystal calibrator [100kHz] with the SX-62 used for SW bands. Other radios discussed here include the Hammarlund Pro, National Radio Co, R L Drake Company, Swann, Radio Manufacturers Galaxy and the ever popular Heath company starting with the Mohawk RX1 and later the HW100 and 101 five band receivers all had the inbuilt calibrator. Personally, I remember building a calibrator to insert into my BC348 Receiver and to three of my Kingsley AR7 receivers. The AR7 was and guess still is an iconic set designed and built in Australia. I have seen a post WW2 photo of a whole wall mount of these devices used in a frequency monitoring station with their manual plug in coil boxes. Drool material for many young SWL of the day.

P104 100, 50 and 25 years ago. Read the contents pages.

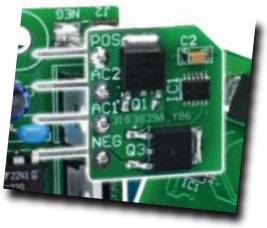
P126/7 QST Index of Advertisers.

And that concludes a review of the QST Magazine for December 2023.
Best wishes for the celebrations and the New year.
73 Craig VK3KG

Silicon Chip December 2023 Review

P12 The History of ELECTRONICS Part 3, Inventors, and their Inventions. This month looks at the inventions that cannot be attributed to just one person. Going back to the “Bagdad Battery”, undersea telegraph cable, photovoltaic cells, satellites, and our television systems.

P24 Review of the Arduino UNO R4 Minima. Apart from the main pinout compatibility this new model offers much more than the venerable UNO R3. RTC, CANBUS, 14-bit ADC and 12-bit precision DAC, more memory, and more speed. Overall, a major technical boost to the much-used older model.

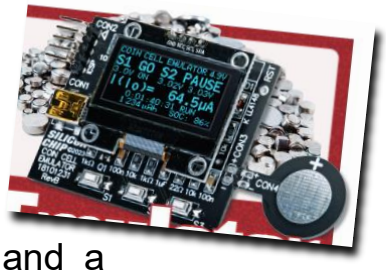


P34 Ideal Diode Bridge Rectifiers. The diodes we generally use today perform well but not as good as an “theoretically ideal” diode, the forward drop effects their efficiency and power handling capabilities. This article looks at a method using MOSFETs to obtain close to ideal performance. The schematic and excellent description describes how using an IC designed for the job, LT4320 and four MOSFETs with a small and efficient assembly can be made. The design includes six different component configurations for different applications and installation space.

P42 Secure Remote Switch, Part 1. A UHF remote switch that uses the “rolling code” method of secure radio communication. It uses two PIC16LF15232 microcontrollers a transmitter and receiver, with each unit having switch selectable ID with 12V or 24V supply capability.

P57 Shenzhen’s Electronics Markets. Investigates that area of commercial China that most electronics enthusiasts have heard of, including images of some of the shops and surrounding streets.

P60 Multi-Channel Volume Control, Part 1. Designed as a standalone unit, it can be integrated into a new or existing installation. Four channel control with a choice of displays in three different kits. Using IR remote control this could be ideal if you want to upgrade your existing manual system considering all the audio sources that are available these days. Good descriptions on development and coding requirements.



P72 Coin Cell Emulator. A power supply that emulates those little coin cells, so you can develop your own project without having to test with many, many real coin cells. A small input interface to enter your power characteristics and an informative OLED display to show output voltage and current. Has a dummy battery “plug” to place in your coin cell holder if you are using one, and a stopwatch/timer for duration tests.

P80 Serviceman's Log. Overly complex food mixer 'repair', Tracking down interference using an SDR, Three different antenna repairs, Dual tracking power supply with excessive ripple.

P86 Recreating the Sputnik-1 D-200 Radio Transmitter, Part 2. Some more of this fascinating project and research into how they designed and built the first satellite and recreating working electronics. The components that had to be found and those that had to be made or substitutes adapted.

P98 Circuit Notebook. Wireless power transfer demonstration, Significant Spectral Sound MIDI Synthesiser software update, Battery-powered timer.

DIYODE December 2023 Review

P8 New and Review. Arduino UNO R4 Wi-Fi Development Board, Raspberry Pi ZERO 2W, Machine sewable LEDs , Hand Gesture Activated Head Light.

P12 Mine Sweeper Mine-Seeking Arduino based Hexapod. A high school designed robot, with 3D parts and LoRaWAN communications. The Spider like robot has a metal detector coil as part of its body the locate hidden land mines. Includes all design processes including PCB designing and printing.

P32 12 Projects for Christmas, Part 2. Emergency Lights, Pulsing LED, Simple Daylight Switch, Music Activated Strobe, Rolling LED Display, Music Light.

P68 Shedding Light on Optical Fibres. Looks at how the fibre works with laser light, the sort of laser needed, and the type of receiver retrieve your signal.

P74 Random Timer. A scheduler designed to have some randomness built in to imitate human operation. For example as a house lights controller to act as though your house is really occupied, regular light like kitchen or lounge will turn off, but not at exactly the same time each day. Called Termere it uses cloud and various python scripts.

P82 Going Pro. Looks at Zeppelin Design Works and the range of DIY audio kits in its production lineup. A handheld Theremin is one kit looked at, showing the parts that come with the kit and a schematic of the device. Other projects include a tremolo unit and a volume pedal and a microphone.

P89 Let There Be Light, Part 1. Automating Plantation Shutters. An ESP32-based remote controlled servo motor to open and close plantation air vent shutters. Uses a light and temperature sensor with a servo actuator. Includes the programming strategy and hardware assembly. An Attiny84 and a HC-12 433Mhz module allow for around the house remote control.

Back Copies of BARG inc. Newsletters

There are available on the BARG website scanned copies of old BARG Newsletters. https://www.barg.org.au/

Colin VK3NCC with the copies supplied by Craig VK3KG has been scanning them and adding to the collection on the website.

Great job….

32 pages !!

Why? Because we are getting a great response from members and non-members, not just responding to requests but volunteering subject matter to include.

If you have an idea or making something, heading into the wilds of this wide brown land with Amateur Radio on board, doing a one day DXpedition, anything Amateur Radio themed, feel free to submit your articles and or pictures.

tomvk3dmk@gmail.com

VK3BML BARG HF ROSTER FOR CONTROL

Date 2024	Operator	Callsign	Backup
04-Jan	Craig	VK3KG	VK3TXR
11-Jan	Paul	VK3TXR	VK3QY
18-Jan	Chris	VK3QY	VK3COE
25-Jan	Terry	VK3UP	VK3COE
01-Feb	Andy	VK3COE	VK3DRE
08-Feb	Doug	VK3DRE	VK3AXH
15-Feb	Ian	VK3AXH	VK3ARM
22-Feb	Robert	VK3ARM	VK3KG
29-Feb	Craig	VK3KG	VK3TXR
07-Mar	Paul	VK3TXR	VK3QY
14-Mar	Chris	VK3QY	VK3UP
21-Mar	Terry	VK3UP	VK3COE
28-Mar	Andy	VK3COE	VK3DRE
04-Apr	Doug	VK3DRE	VK3AXH
11-Apr	Ian	VK3AXH	VK3ARM
18-Apr	Robert	VK3ARM	VK3KG
25-Apr	Craig	VK3KG	VK3TXR
02-May	Paul	VK3TXR	VK3QY
09-May	Chris	VK3QY	VK3UP
16-May	Terry	VK3UP	VK3COE
23-May	Andy	VK3COE	VK3DRE
30-May	Doug	VK3DRE	VK3AXH
06-Jun	Ian	VK3AXH	VK3ARM
13-Jun	Robert	VK3ARM	VK3KG
20-Jun	Craig	VK3KG	VK3TXR
27-Jun	Paul	VK3TXR	TBA
04-Jul	New Roster Due		

If there are any other club members who would like to offer themselves for a shift, please contact me, Craig VK3KG, and I will give you a position in the list. With more members participating the workload/responsibility is better averaged, so you do not have to be on call too often.

For each operator you are asked to be there only for two consecutive nights. The one where you are nominated as the main NC Station and the week before to be prepared to step in if the nominated person isn't available or is delayed in coming up in time. There is another net preceding the BARG. net and its best to come up early and listen in until you hear who is present as usually the same people will follow through to the BARG net.